

**APURVA NAYAK**

**Electrical Engineer**

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<b>Education</b>	<b>Illinois Institute of Technology, Chicago, IL.</b> Master of Science in Electrical Engineering. Digital Signal Processing - Image Processing & VLSI.	<b>GPA: 3.56 Aug 2009</b>
	<b>University of Pune, Pune, India.</b> Bachelor of Science in Engineering. Electronics and Telecommunication Engineering.	<b>GPA: 3.70 June 2007</b>

**Summary**

- Hands on experience in **Digital Signal Processing** and **Image Processing** using **MATLAB**.
- Worked on VLSI using **VHDL, Cadence CAD tools, Verilog HDL, MULTISIM**.
- Software Skills: **C, C++, JAVA, J2EE, PHP, MySQL**.
- Hands on experience with J2EE and PHP using **eclipse, IBM RAD, Websphere** and **Tomcat** Application Servers and **Ubuntu 8.10** Server.
- Designed Microcontroller based hardware using **controller 8951**.
- Self-motivated, highly organized, strong written and verbal communication skills and a recognized team player with good interpersonal skills.

**Project s**

- Research Project: Positron Emission Tomography** **Fall 08 - Current**
- Performed analysis on developing relation between accuracy of kinetic parameters and count number or dose level.
  - Implementation of Expected Maximization Algorithm.
- Pattern classification Using MATLAB** **Fall 08**
- Programmed the three layer neural network and compared with K-means algorithm for classification of fisher's data using MATLAB.
- Implementation JPEG Using MATLAB** **Spring 08**
- Programmed the JPEG Image Compression encoding and decoding using MATLAB.
- Character Recognition using MATLAB** **Spring 08**
- Developed algorithm for recognizing Characters from an image
  - Putting characters in a text file in original order using MATLAB programming.
- Leakage Power Optimization Techniques in 4 Bit Full Adder implementation** **Fall08**
- Designed different versions of 4 bit ripple carry adders using Cadence tools
  - Simulated the 4 bit ripple carry adders for reducing the leakage power.
- Responsibilities:** Designing and simulating the circuit using Cadence tools.
- Digital Image Processing on X-ray images** **Spring 07**
- Programmed and developed the filtering technique algorithm in MATLAB.
  - Compared Compression techniques like JPEG and SPIHT.
  - Studied DICOM File Format.
  - Evaluated performance using several objective Quality Measures.
- Digital LCR Meter** **Fall 06**
- Digitally Controlled Circuitry using microcontroller (89C51); Based on the Principle of balancing the Wien Bridge automatically.
- Responsibilities:** Design, Simulation and Implementation of Digital LCR Meter.

**Activities**

Presented seminar on Digital X-ray Images at College.  
Participated in Circuit Design competition.  
Student community organizer for formal functions in college.

**On Campus Experience**

Developing a web application using PHP on Ubuntu 8.10 virtual server.  
Mapped all server connections in a Wheaton campus building, setting up and maintaining a computer lab (cabling and software maintenance).  
Adept with CAT-5, CAT-6 cable installations and Use of Panduit connectors.